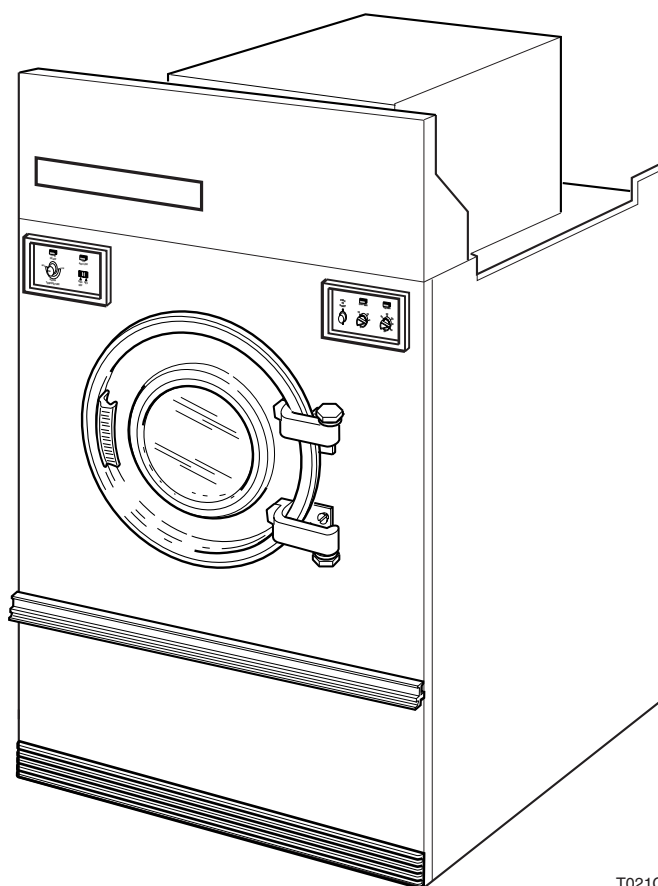


# Drying Tumblers

120 Pound Capacity

170 Pound Capacity

Refer to Page 5 for Model Numbers



T021C

Troubleshooting



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# Section 1

## Safety Information

Throughout this manual and on machine decals, you will find precautionary statements (i.e. “CAUTION,” “WARNING,” and “DANGER”) followed by specific instructions. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

### **DANGER**

Danger indicates the presence of a hazard that **will** cause **severe** personal injury, death or substantial property damage if the danger is ignored.

### **WARNING**

Warning indicates the presence of a hazard that **can** cause **severe** personal injury, death or substantial property damage if the warning is ignored.

### **CAUTION**

Caution indicates the presence of a hazard that **will** or **can** cause **minor** personal injury or property damage if the caution is ignored.

Additional precautionary statements (i.e. “IMPORTANT” and “NOTE”) are followed by specific instructions.


### **IMPORTANT**

The word “IMPORTANT” is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.


### **NOTE**


The word “NOTE” is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.


In the interest of safety, some general precautions relating to the operation of this machine follow.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <h2>WARNING</h2> |
| <ul style="list-style-type: none"><li>• <b>Failure to install, maintain and/or operate this product according to the manufacturer's instructions may result in conditions which can produce serious injury, death and/or property damage.</b></li><li>• <b>Do not repair or replace any part of the product or attempt any servicing unless specifically recommended or published in this Service Manual and unless you understand and have the skills to carry out the servicing.</b></li><li>• <b>Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the product is properly grounded and to reduce the risk of fire, electric shock, serious injury or death.</b></li></ul> <p style="text-align: right;">W006R2</p> |                  |

**IMPORTANT INFORMATION:** During the lifetime of your tumbler, it may require service. The information contained in this manual was written and is intended for use by qualified service technicians who are familiar with the safety procedures required in the repair of your tumbler, and who are equipped with the proper tools and testing equipment.

|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|                                                                                                                                                                                                                                                                                                                                                | <b>WARNING</b> |
| <p>To reduce the risk of electric shock, fire, explosion, serious injury or death:</p> <ul style="list-style-type: none"> <li>• Disconnect electric power to the tumbler before servicing.</li> <li>• Never start the tumbler with any guards/panels removed.</li> <li>• Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.</li> </ul> |                |
| W240                                                                                                                                                                                                                                                                                                                                                                                                                            |                |

|                                                                                                                                                                                                                                                             |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|                                                                                                                                                                            | <b>WARNING</b> |
| <p>Repairs that are made to your products by unqualified persons can result in hazards due to improper assembly or adjustments subjecting you or the inexperienced person making such repairs to the risk of serious injury, electrical shock or death.</p> |                |
| W007                                                                                                                                                                                                                                                        |                |

|                                                                                                                                                                                                                                                                                                             |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|                                                                                                                                                                                                                            | <b>CAUTION</b> |
| <p>If you or an unqualified person perform service on your product, you must assume the responsibility for any personal injury or property damage which may result. The manufacturer will not be responsible for any injury or property damage arising from improper service and/or service procedures.</p> |                |
| W008                                                                                                                                                                                                                                                                                                        |                |

**NOTE:** The **WARNING** and **IMPORTANT** instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors which **CANNOT** be built into this tumbler. These factors **MUST BE** supplied by the person(s) installing, maintaining or operating the tumbler.

Always contact your dealer, distributor, service agent or the manufacturer on any problems or conditions you do not understand.

## Locating An Authorized Service Person:

Alliance Laundry Systems is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Alliance Laundry Systems also recommends contacting an authorized technician and using authorized factory parts.

# Section 2

## Introduction

### Model Identification

Information in this manual is applicable to these models:

| Gas     |         | Steam/Thermal Oil |          |
|---------|---------|-------------------|----------|
| AT120FG | AT170FG | AT120CSH          | AT170CSH |
| DC120FG | DC170FG | DC120CSH          | DC170CSH |
| DT120FG | DT170FG | DT120CSH          | DT170CSH |
| JC120FG | JC170FG | JC120CSH          | JC170CSH |
| JT120FG | JT170FG | JT120CSH          | JT170CSH |
| SC120FG | SC170FG | SC120AT           | SC170CSH |
| ST120FG | ST170FG | SC120CSH          | ST170CSH |
|         |         | ST120AT           |          |
|         |         | ST120CSH          |          |

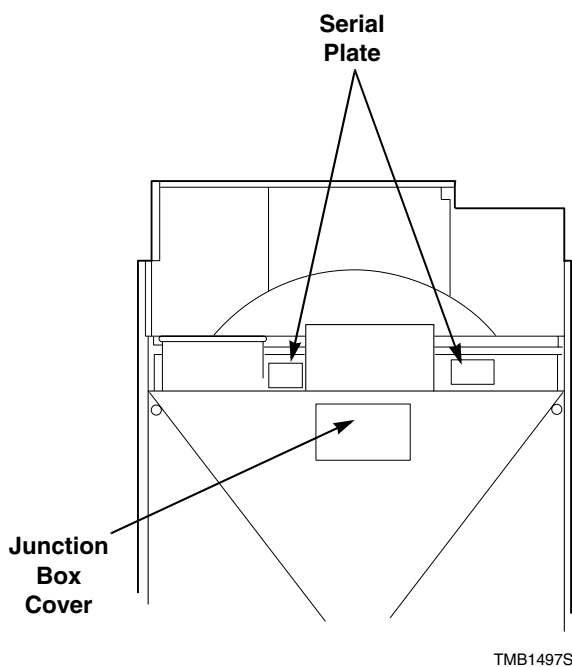
## Customer Service

If literature or replacement parts are required, contact the source from whom the machine was purchased or contact Alliance Laundry Systems at (920) 748-3950 for the name and address of the nearest authorized parts distributor.

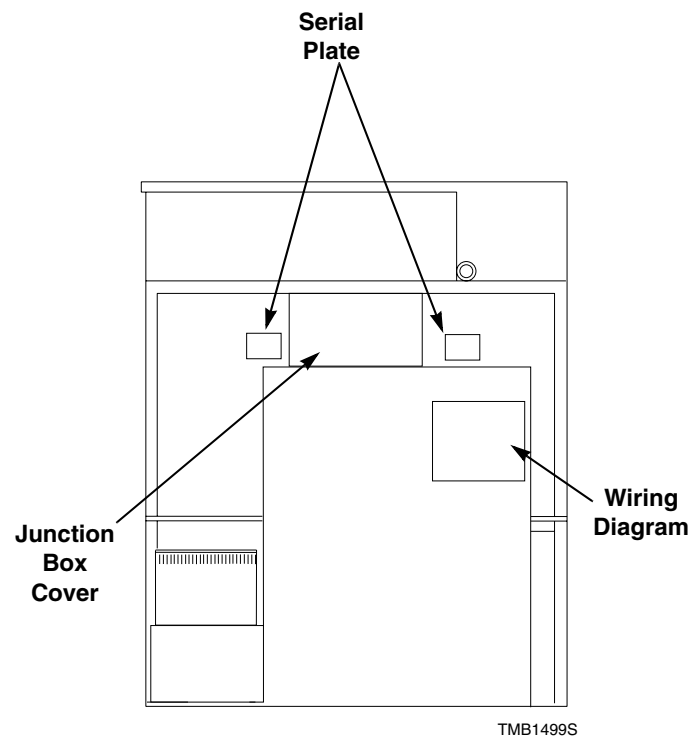
For technical assistance, call (920) 748-3121.

## Serial Plate Location

When calling or writing about your product, be sure to mention model and serial numbers. Model and serial numbers are located on serial plate as shown.



**120 Pound Models**



**170 Pound Models**

### Safety Warnings and Decals

SAFETY WARNINGS and decals have been provided in key locations to remind you of important precautions for the safe operation and maintenance of your tumbler. Please take the time to review these warnings before proceeding with service work.

All decals have been designed and applied to withstand washing and cleaning. Decals should be checked periodically to be sure they have not been damaged, removed, or painted. Refer to the *Parts Manual* for ordering replacement decals.

### Safety Precautions for Servicing Tumblers

- **Disconnect electrical service.**
- **Shut off supply gas valve before servicing gas components.**
- **Access panel MUST be reinstalled after inspection or servicing of tumbler is completed.**
- **Use a non-corrosive leak detecting compound to check all pipe connections for gas leaks. DO NOT USE AN OPEN FLAME TO CHECK FOR GAS LEAKS!**
- **Belt guard MUST be reinstalled after inspection or servicing of tumbler is completed.**
- **Contactor box cover MUST be reinstalled after inspection or servicing of electric and/or reversing tumbler is completed.**
- **Loading door switch MUST be operational before putting tumbler into service.**
- **Junction box cover MUST be reinstalled after inspection or servicing of tumbler is completed.**



# Section 3

## Troubleshooting



### WARNING

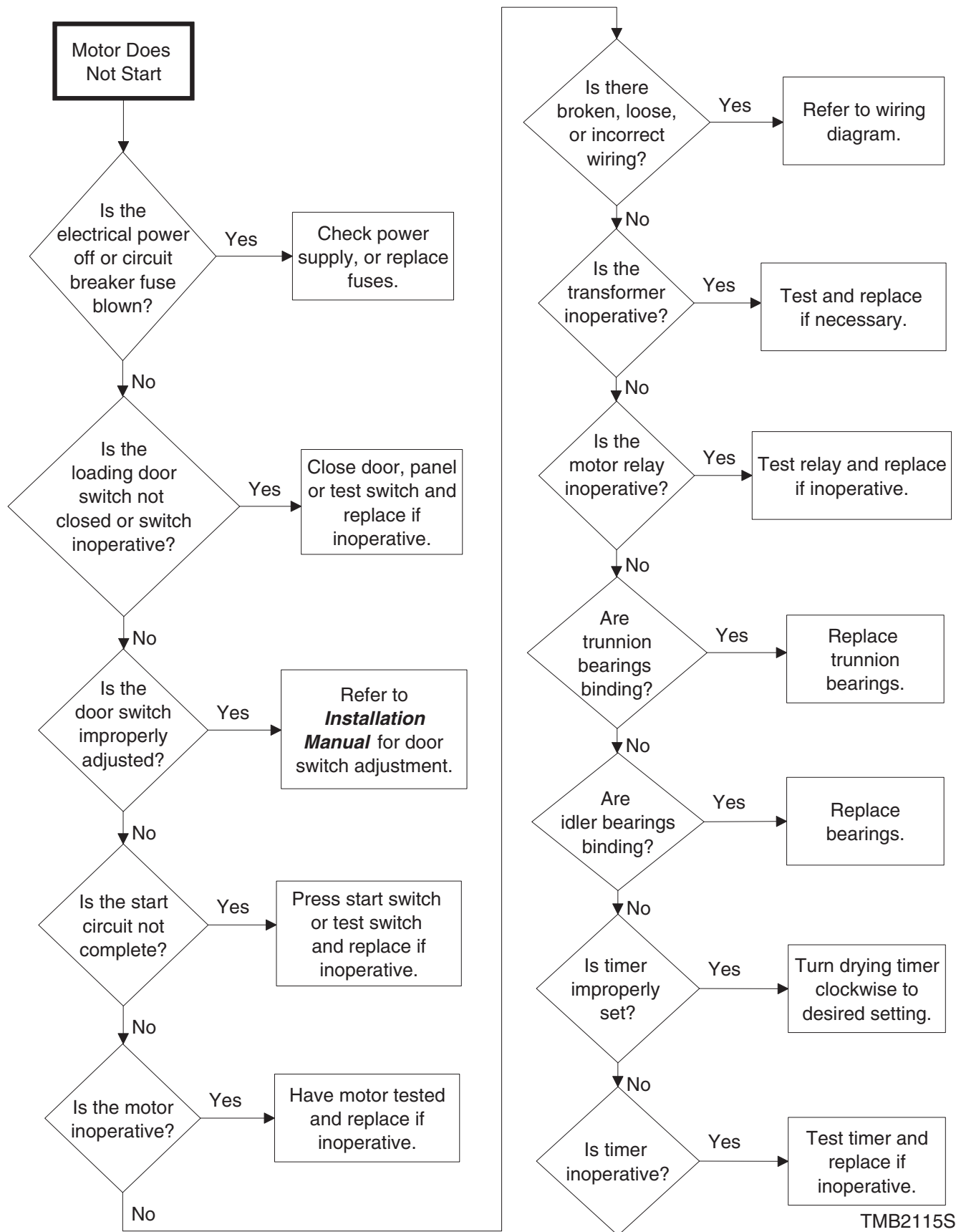
To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

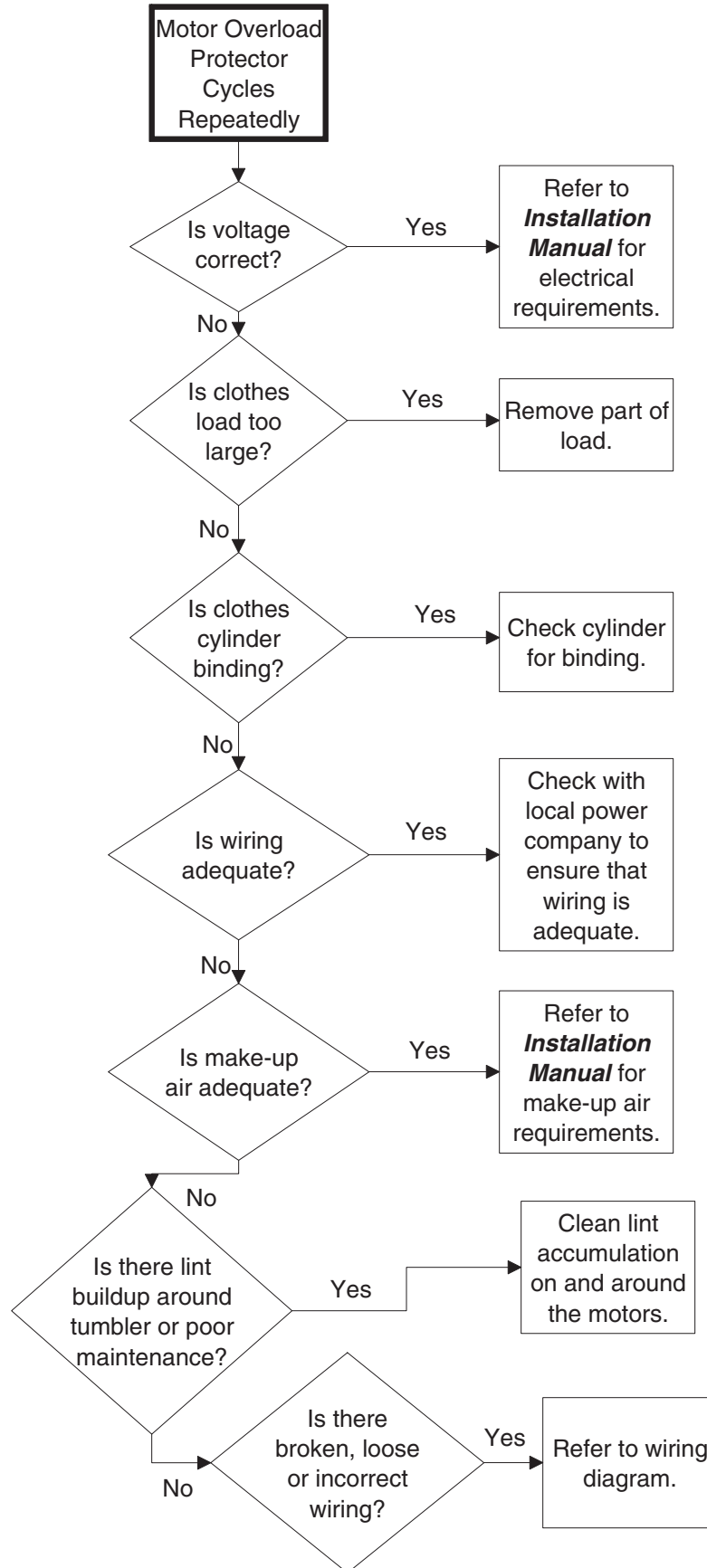
W002

**IMPORTANT:** Refer to wiring diagram for aid in testing tumbler components.

# 1. Motor Does Not Start

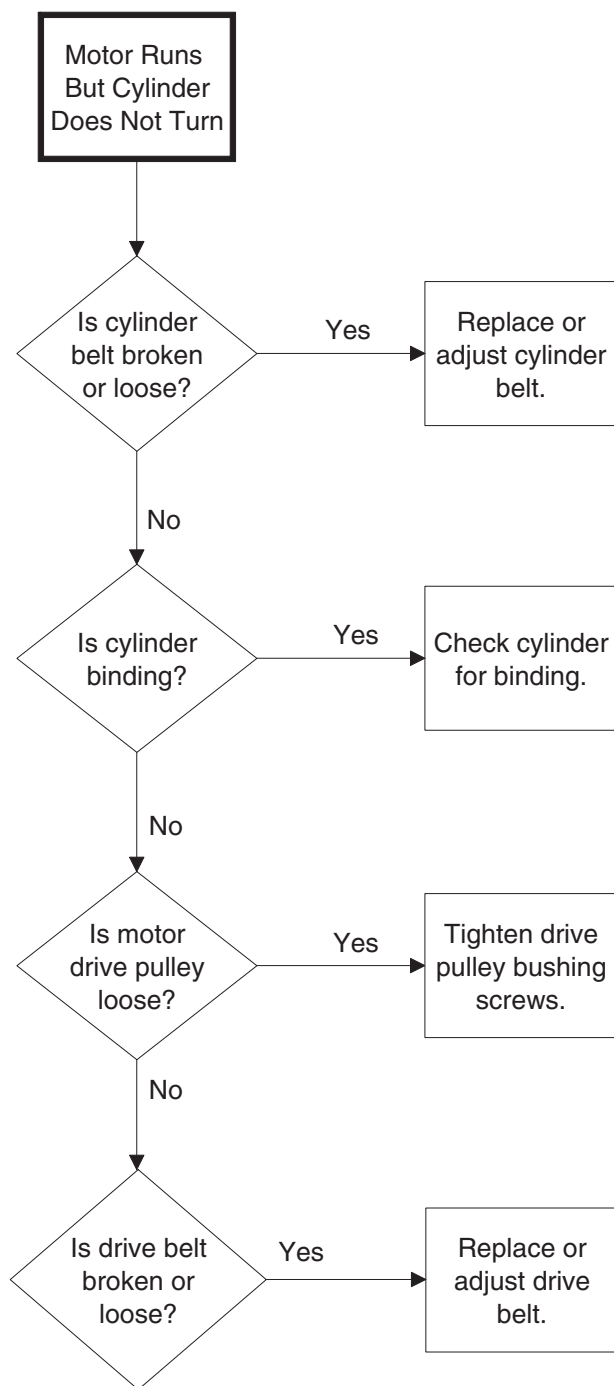


## 2. Motor Overload Protector Cycles Repeatedly



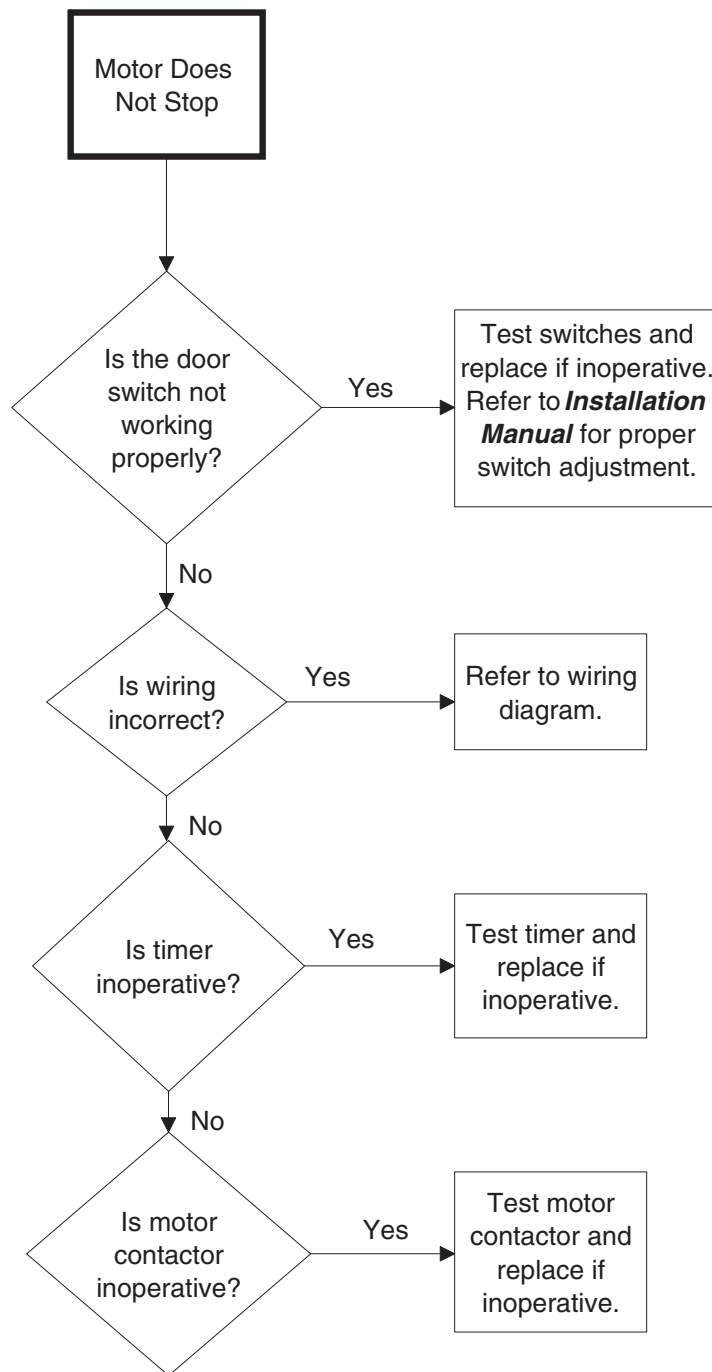
TMB1904S

### 3. Motor Runs But Cylinder Does Not Turn



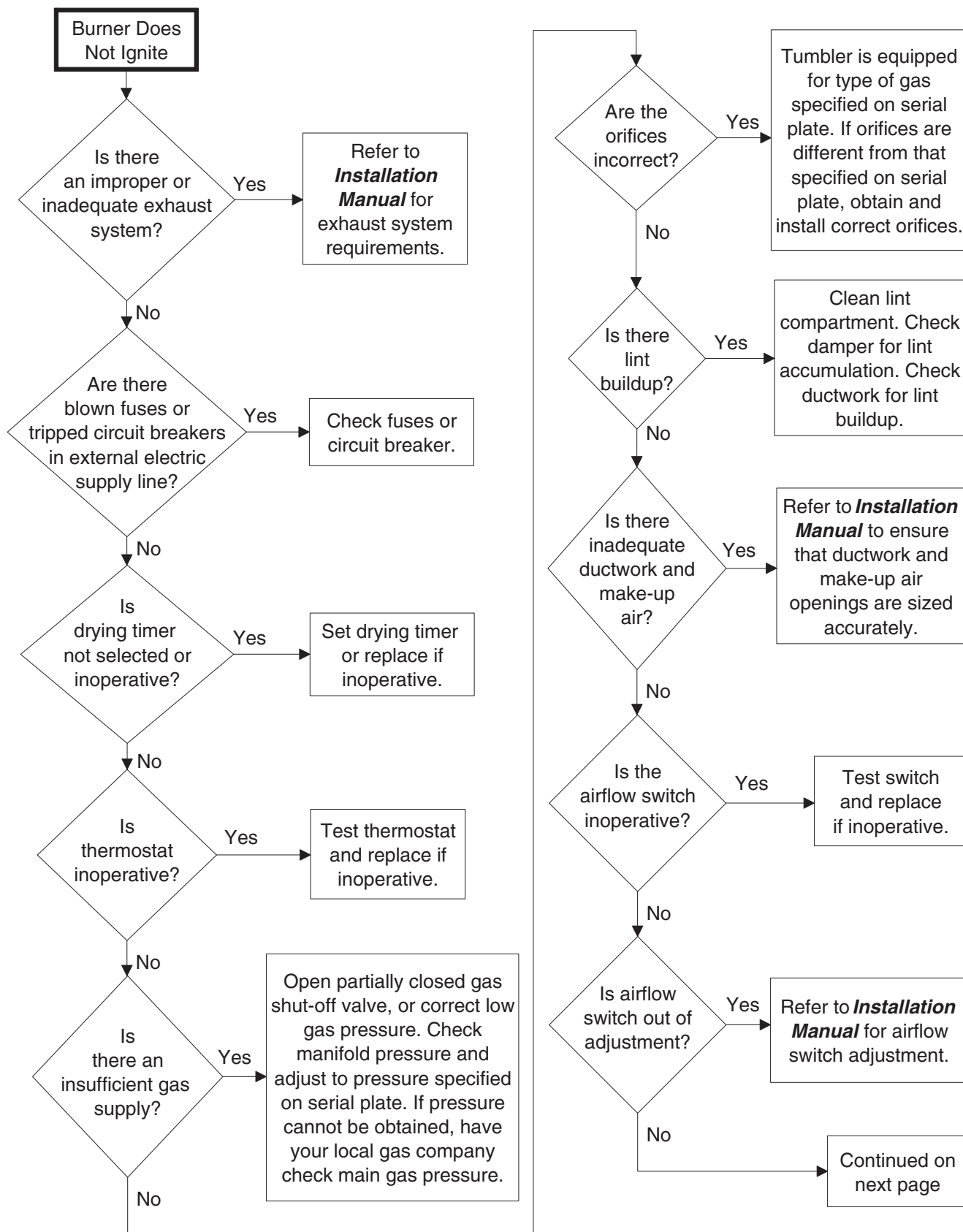
TMB2116S

## 4. Motor Does Not Stop



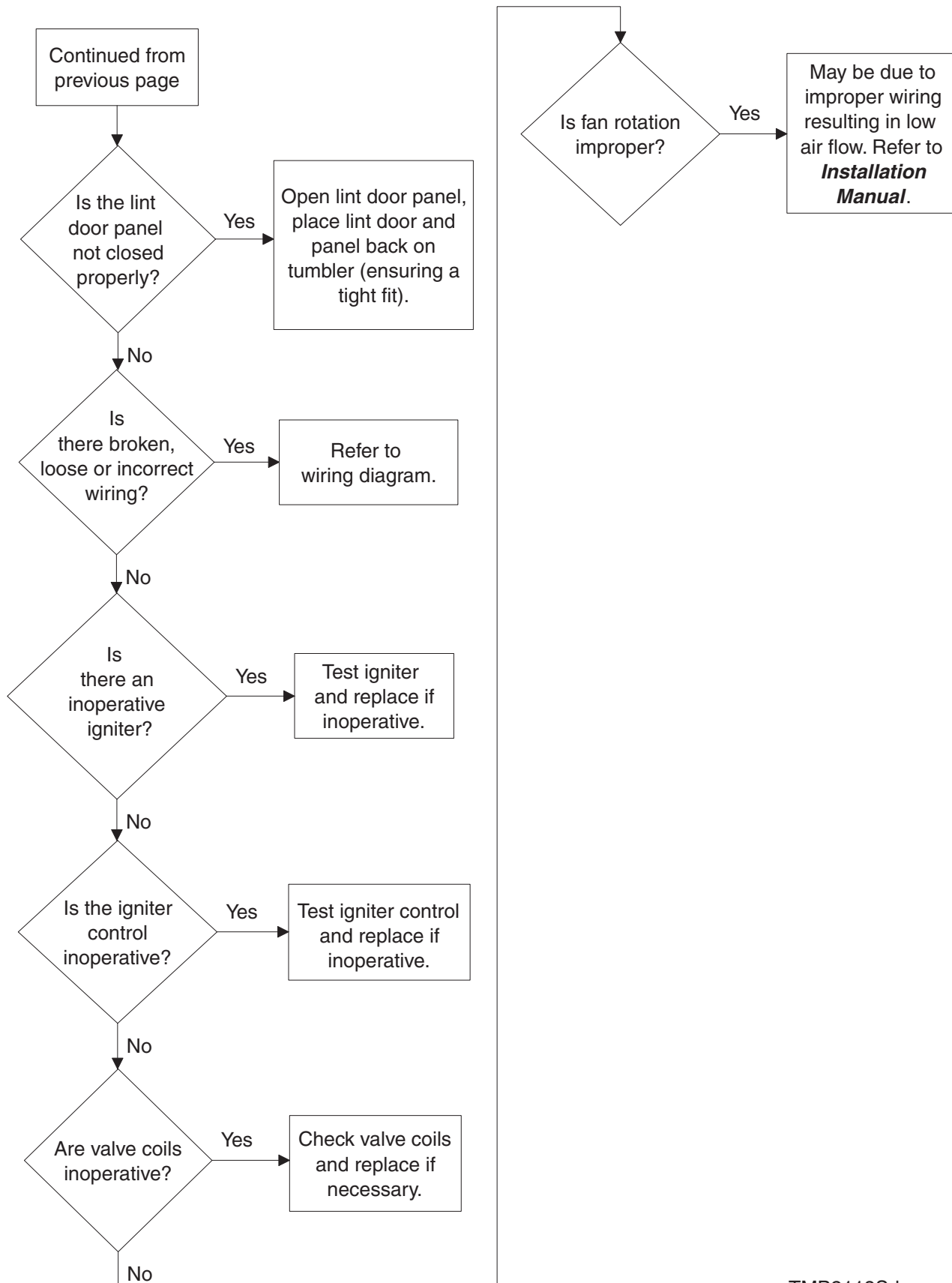
TMB2117S

## 5. Gas Burner Does Not Ignite



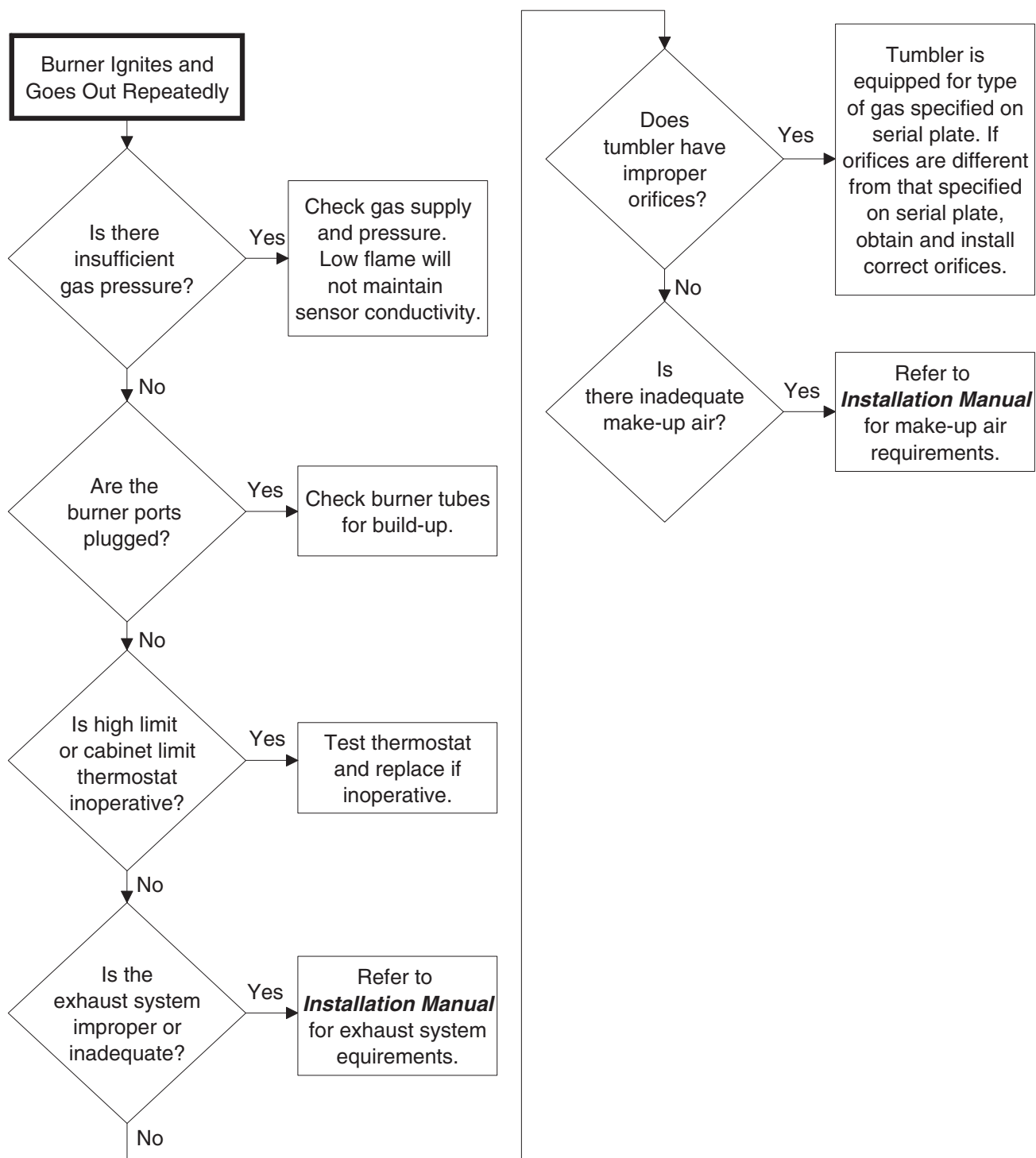
TMB2118S-a

## 5. Gas Burner Does Not Ignite (continued)



TMB2118S-b

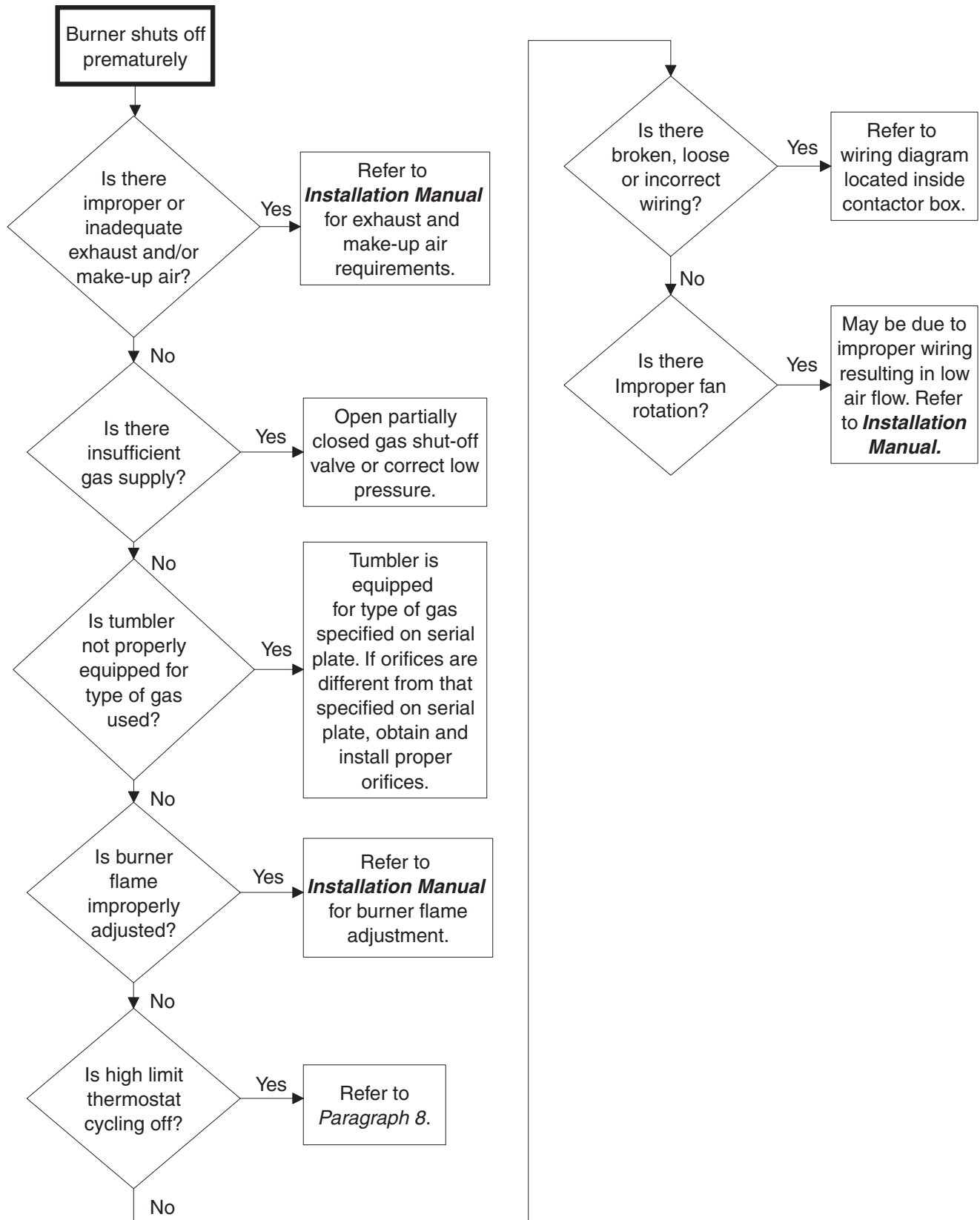
## 6. Burner Ignites and Goes Out Repeatedly



TMB2119S

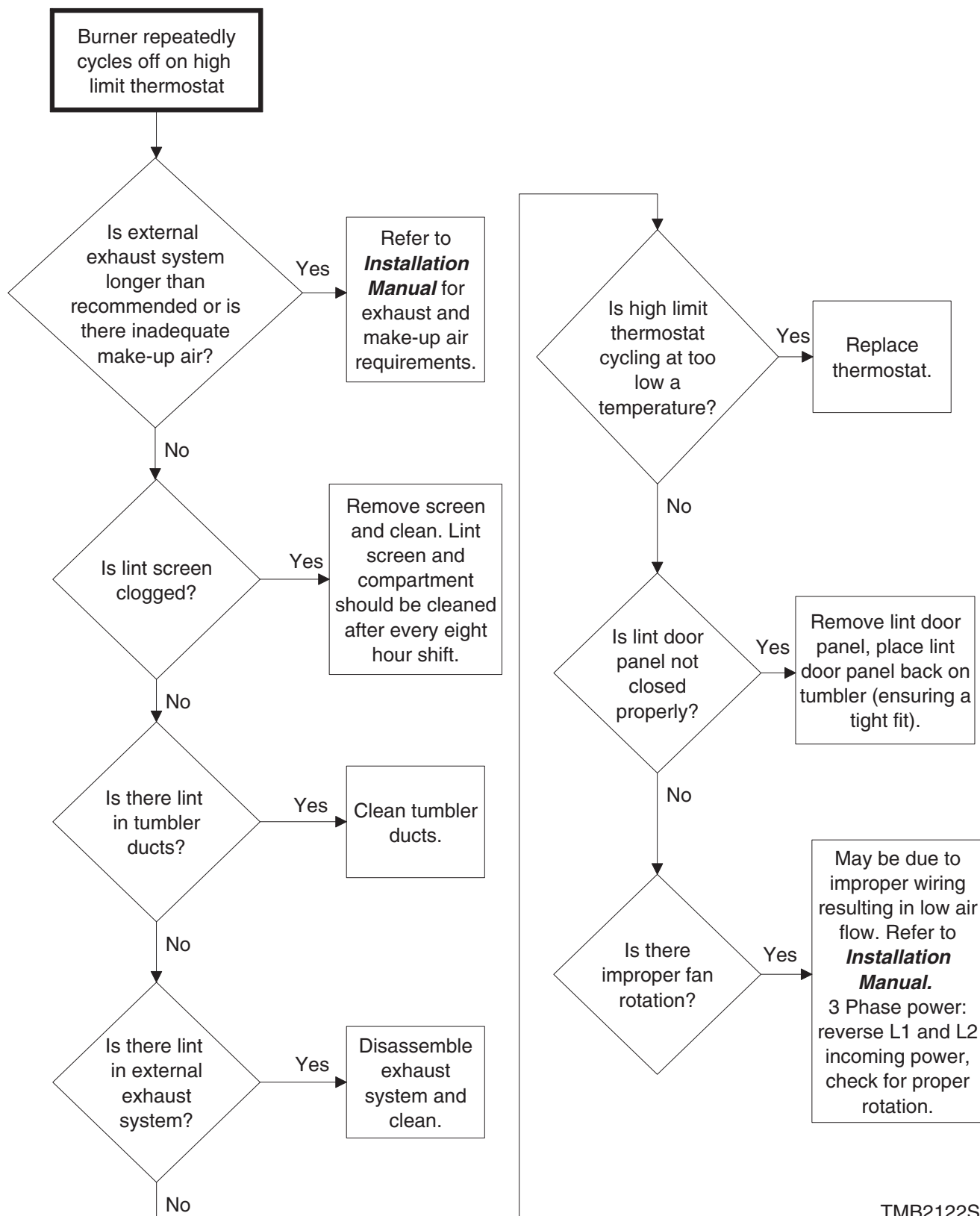


## 7. Burner Shuts OFF Prematurely



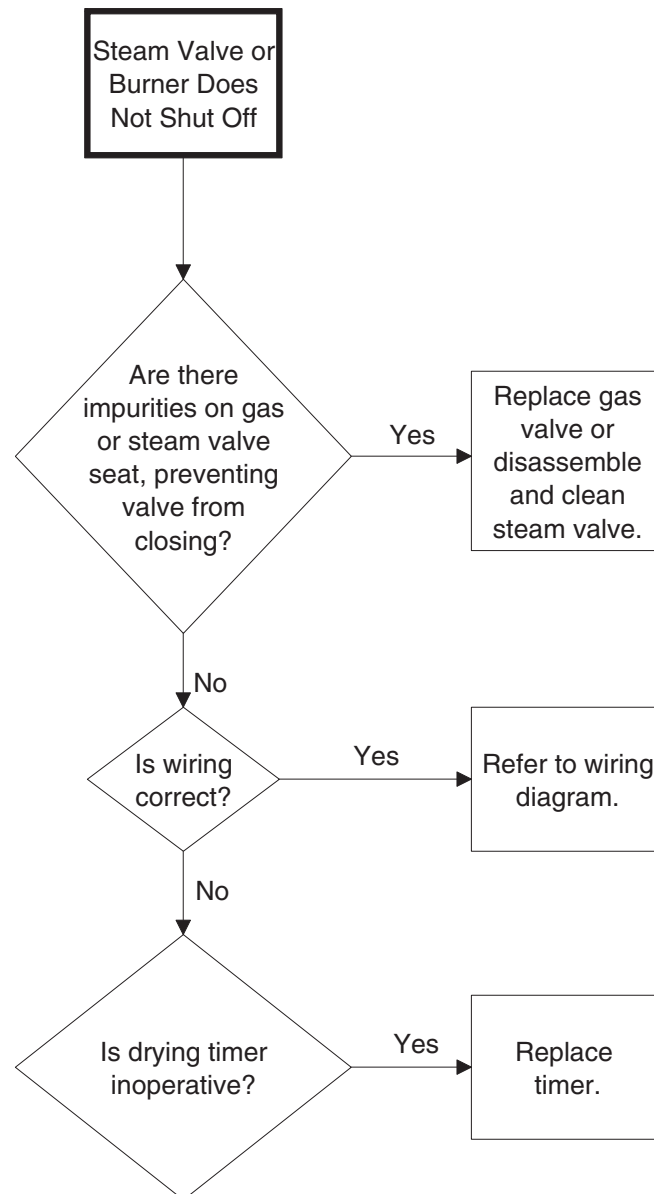
TMB2120S

## 8. Burner Repeatedly Cycles Off on High Limit Thermostat



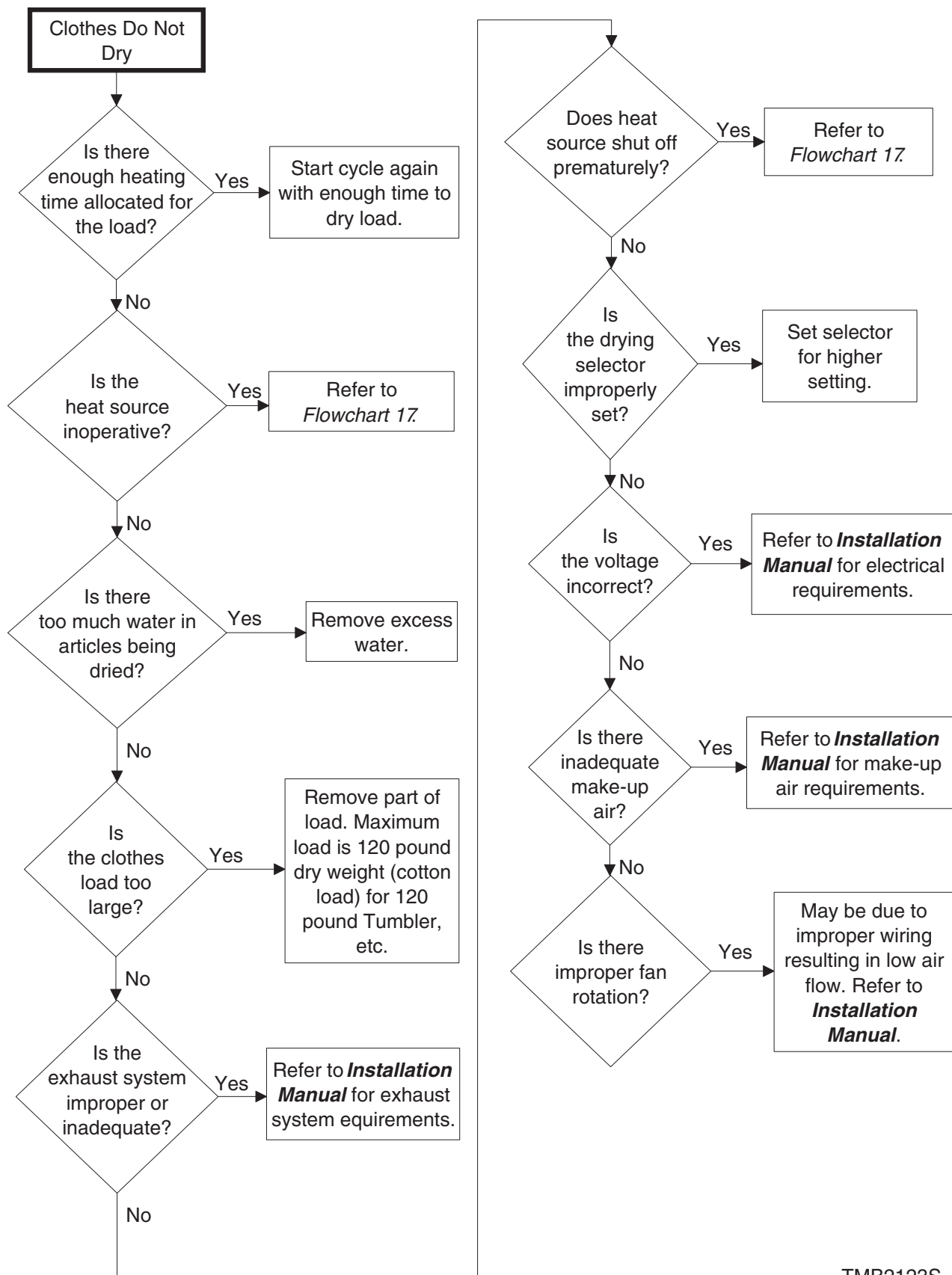
TMB2122S

## 9. Steam Valve or Burner Does Not Shut Off



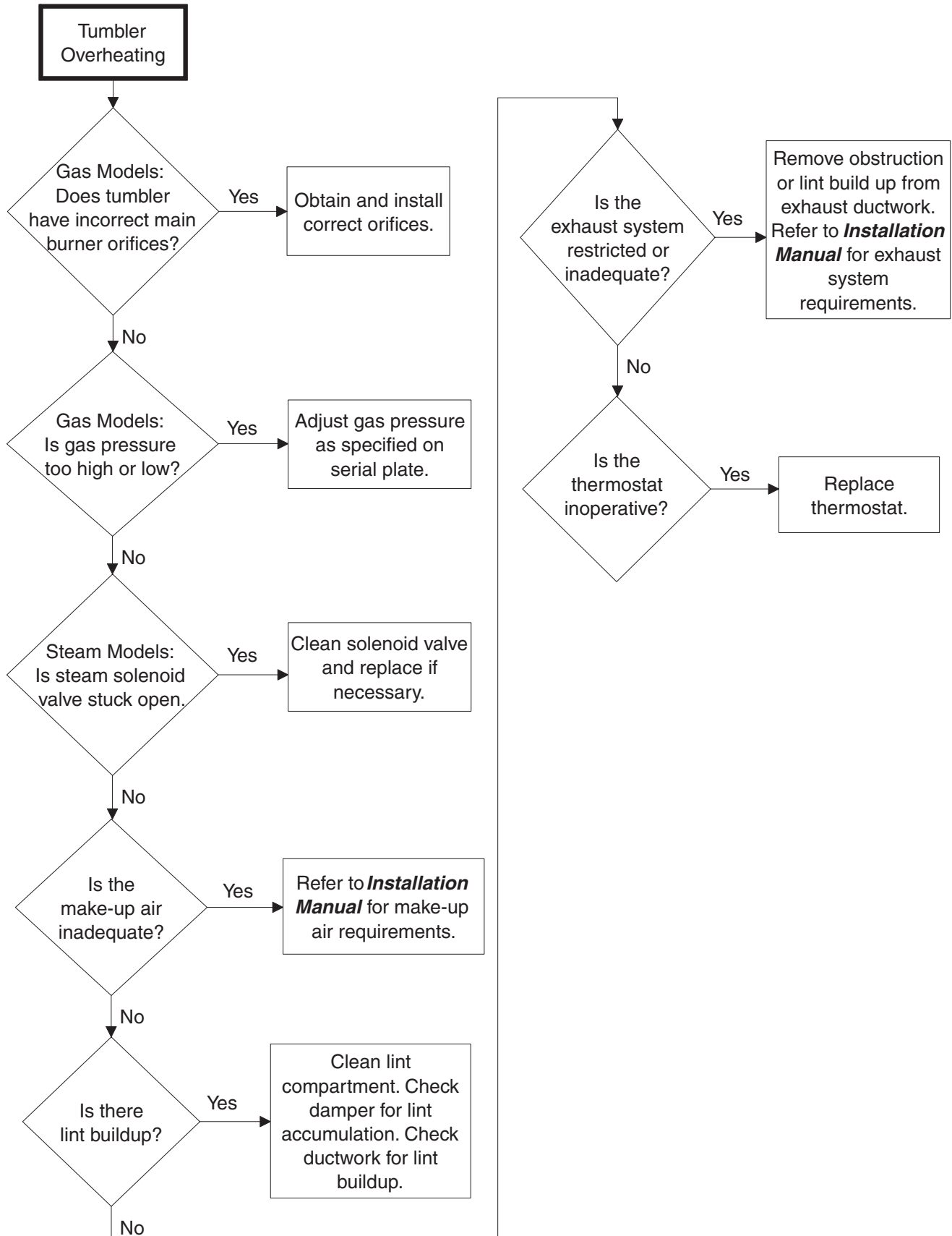
TMB2121S

## 10. Clothes Do Not Dry



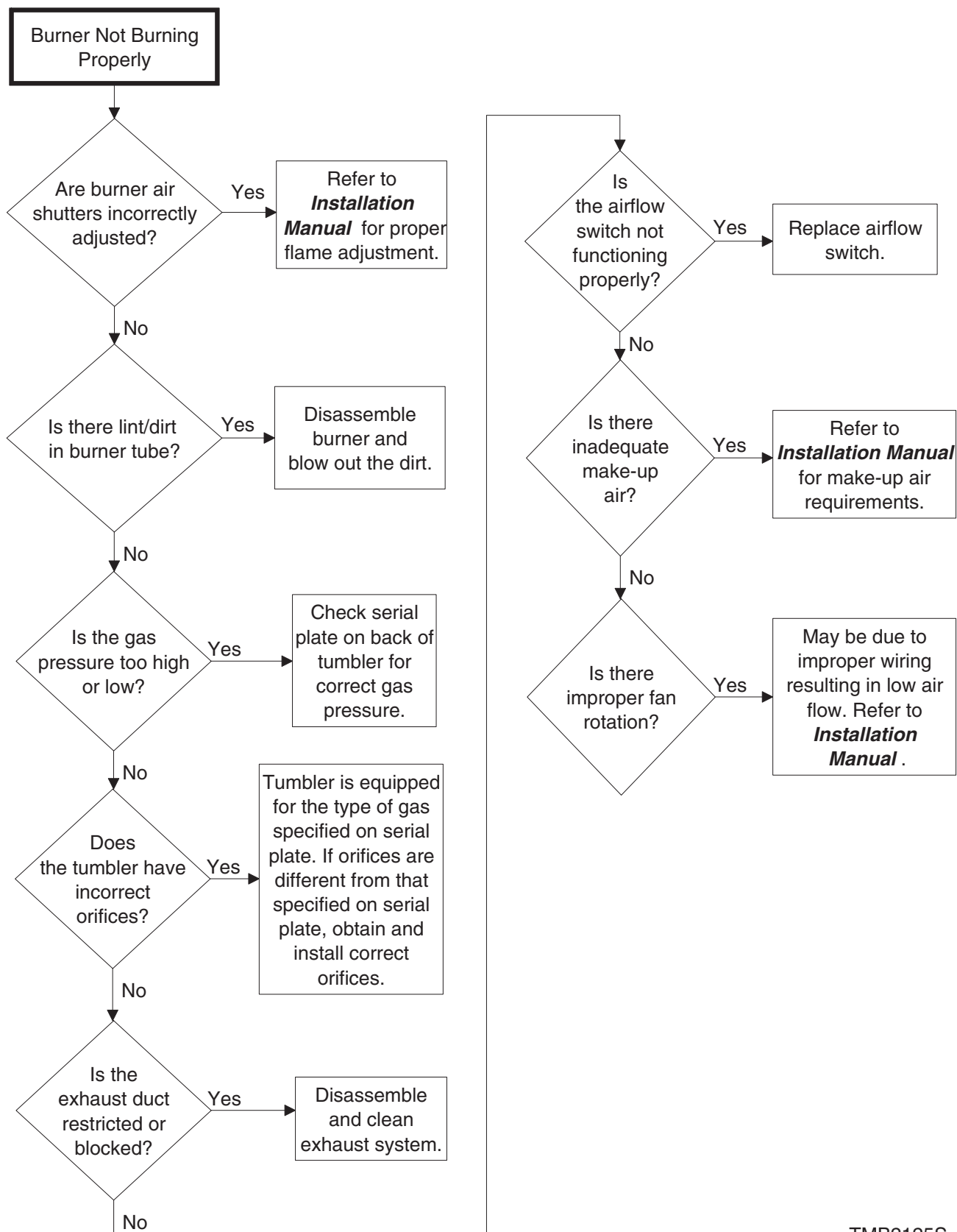
TMB2123S

# 11. Tumbler Overheating



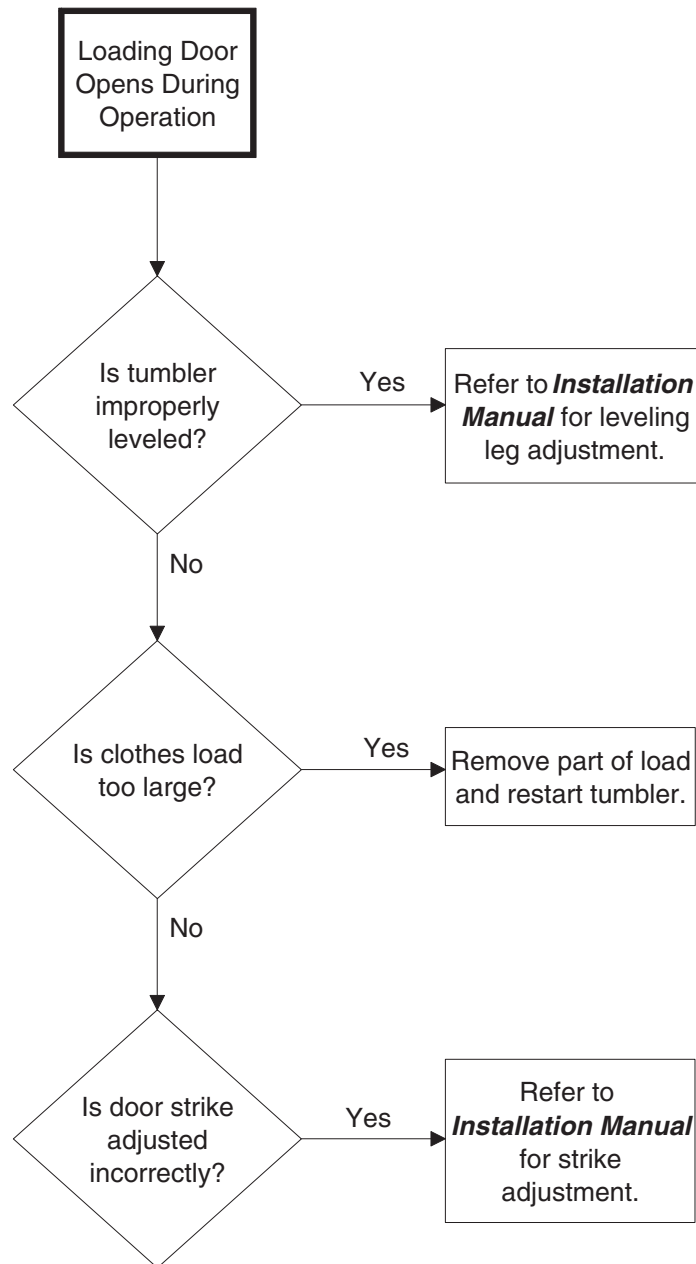
TMB2124S

## 12. Burner Not Burning Properly



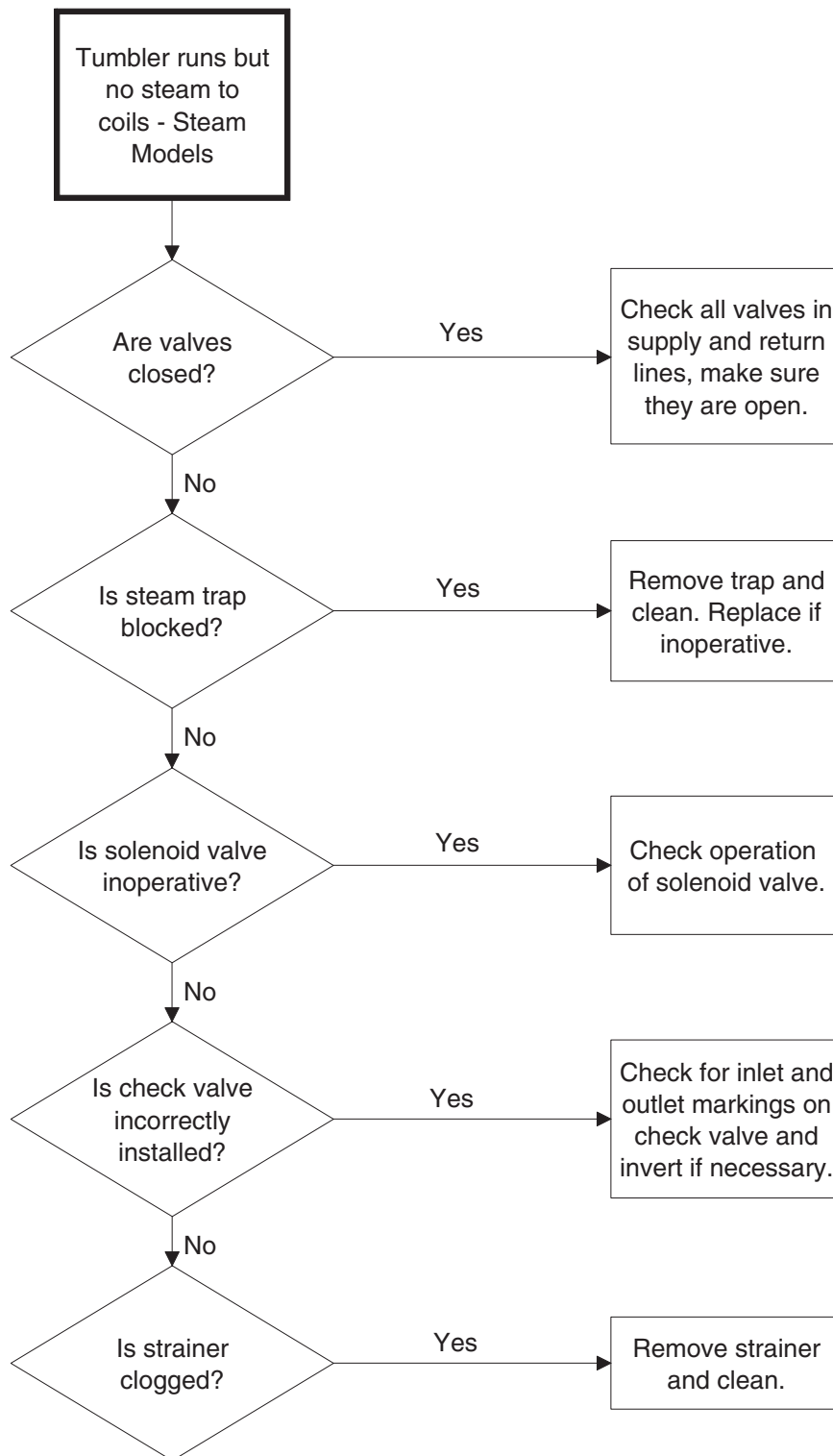
TMB2125S

# 13. Loading Door Opens During Operation



TMB2126S

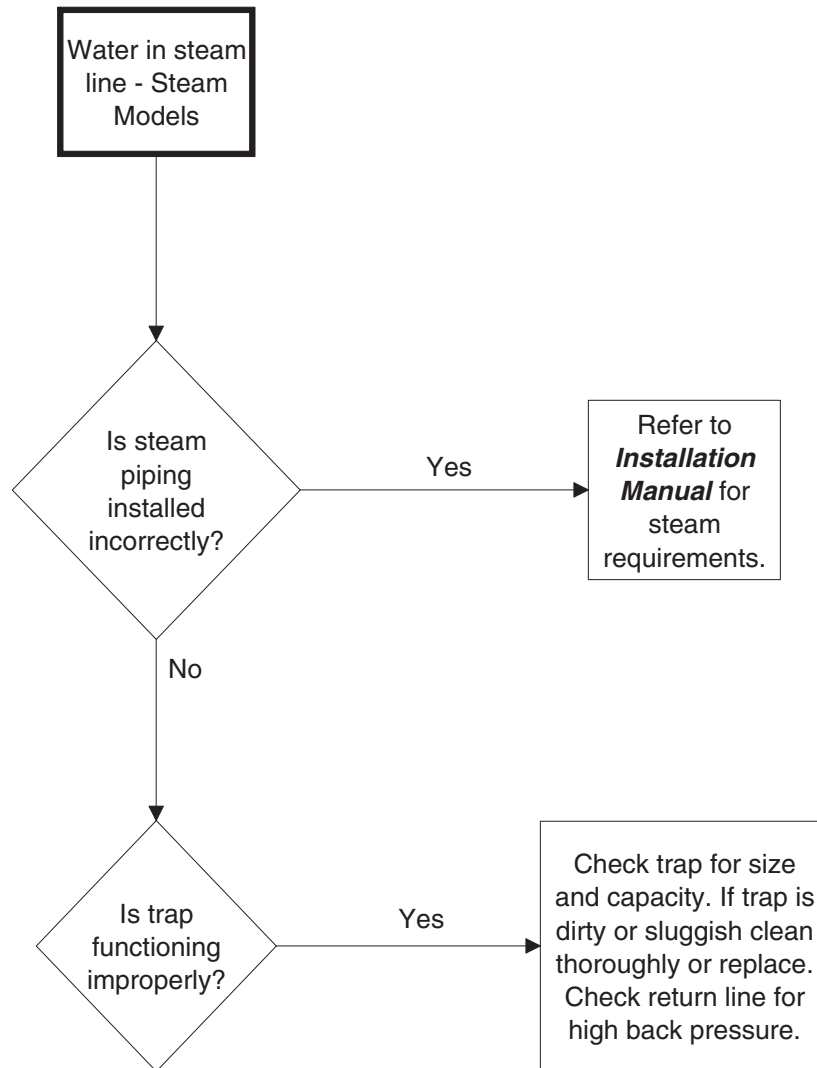
## 14. Tumbler Runs But No Steam to Coils – Steam Models



TMB2127S

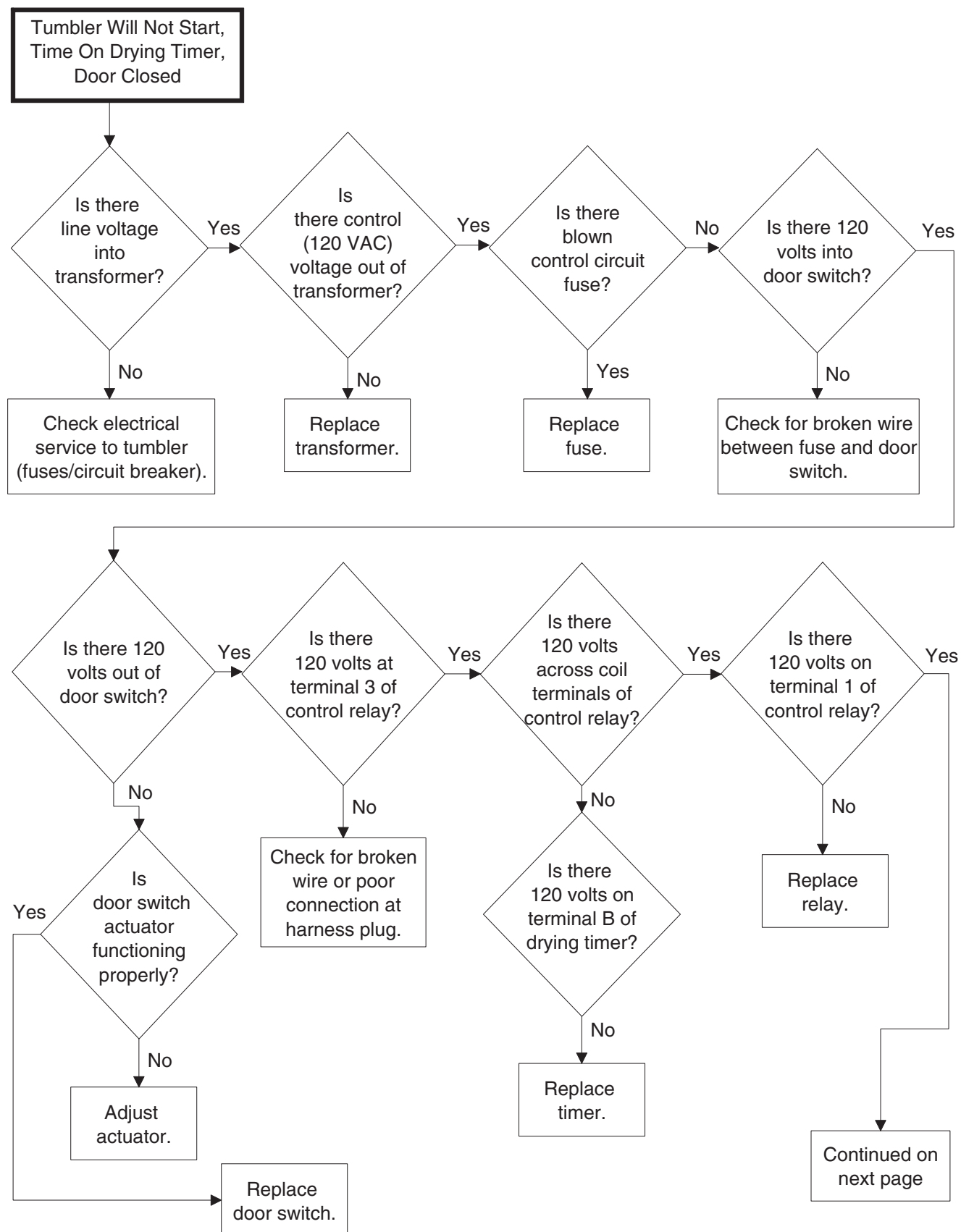


# 15. Water In Steam Line – Steam Models



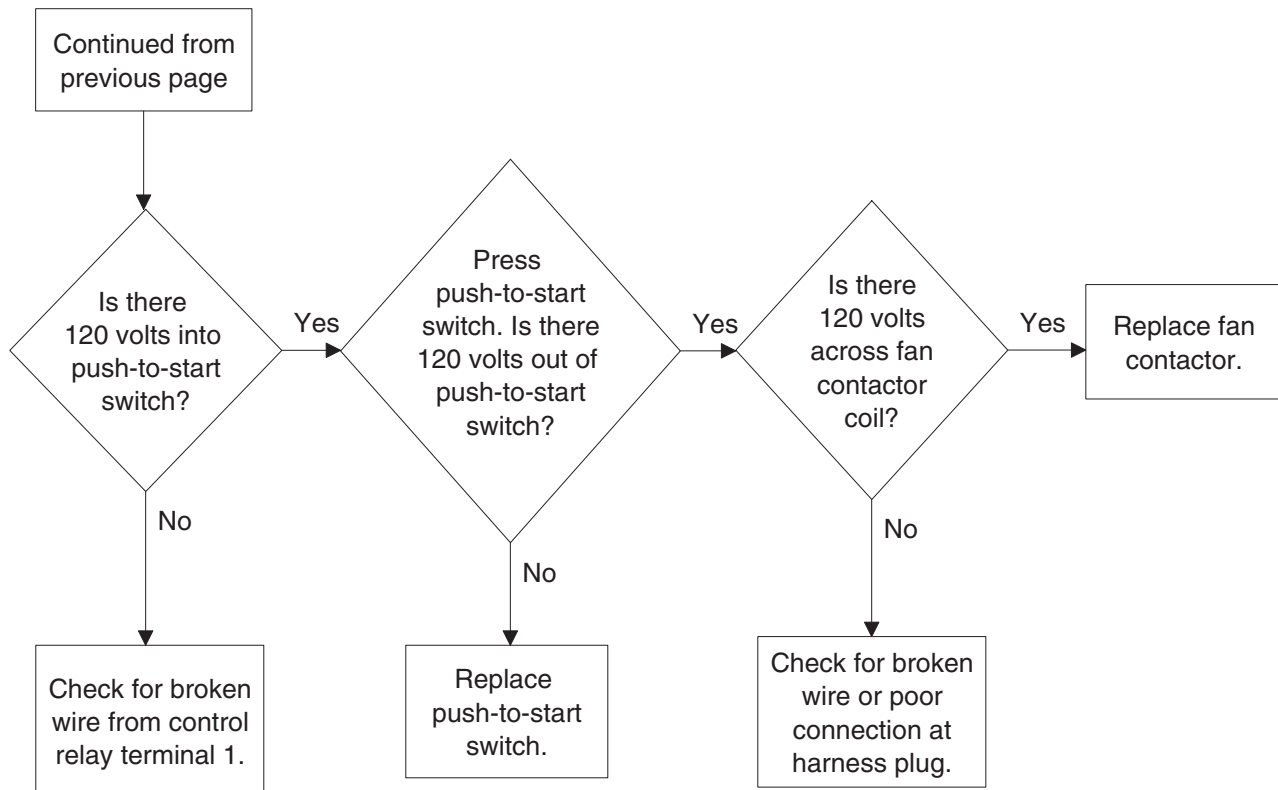
TMB1887S

## 16. Tumbler Will Not Start, Time On Drying Timer, Door Closed



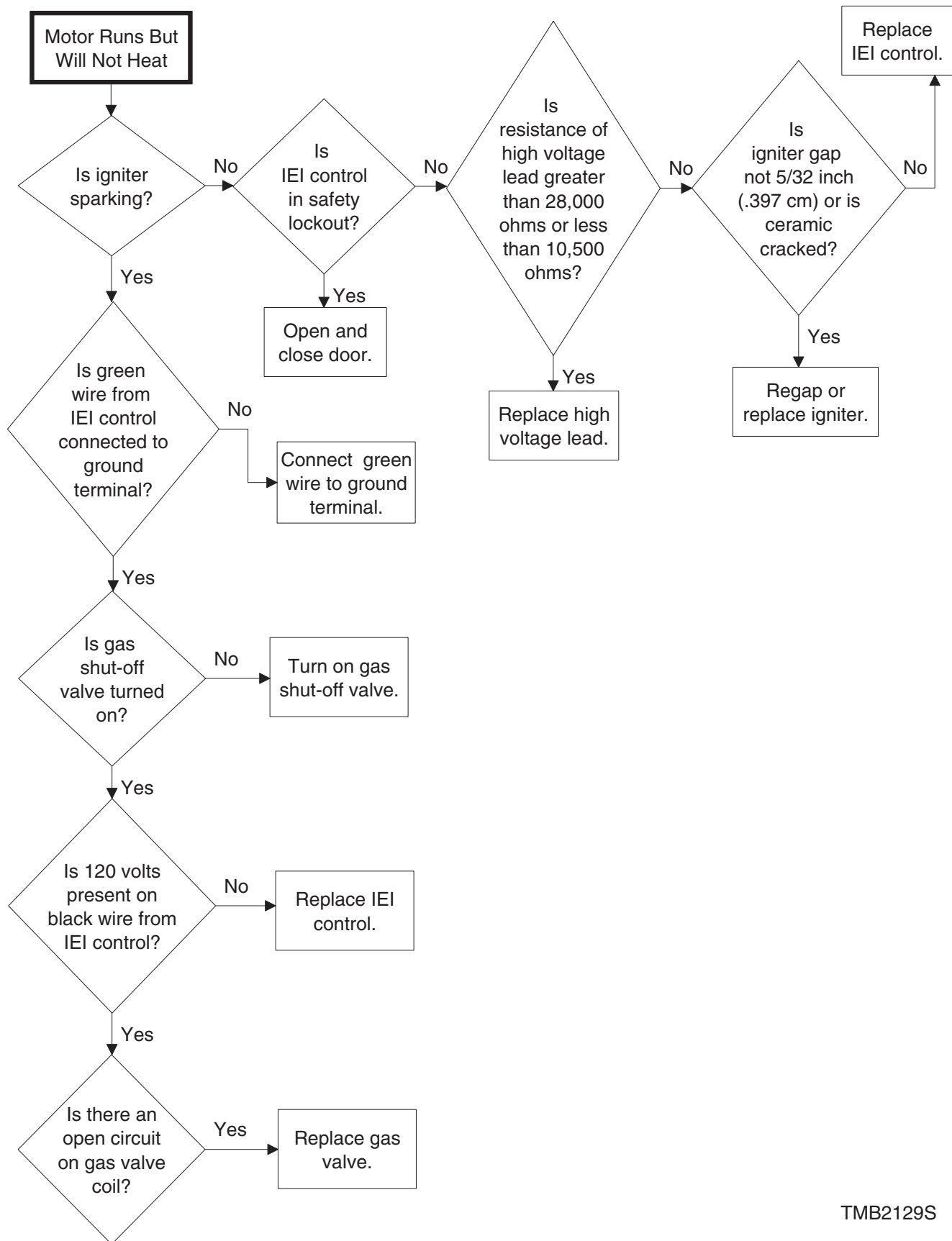
TMB2128S-a

## 16. Tumbler Will Not Start, Time On Drying Timer, Door Closed (continued)



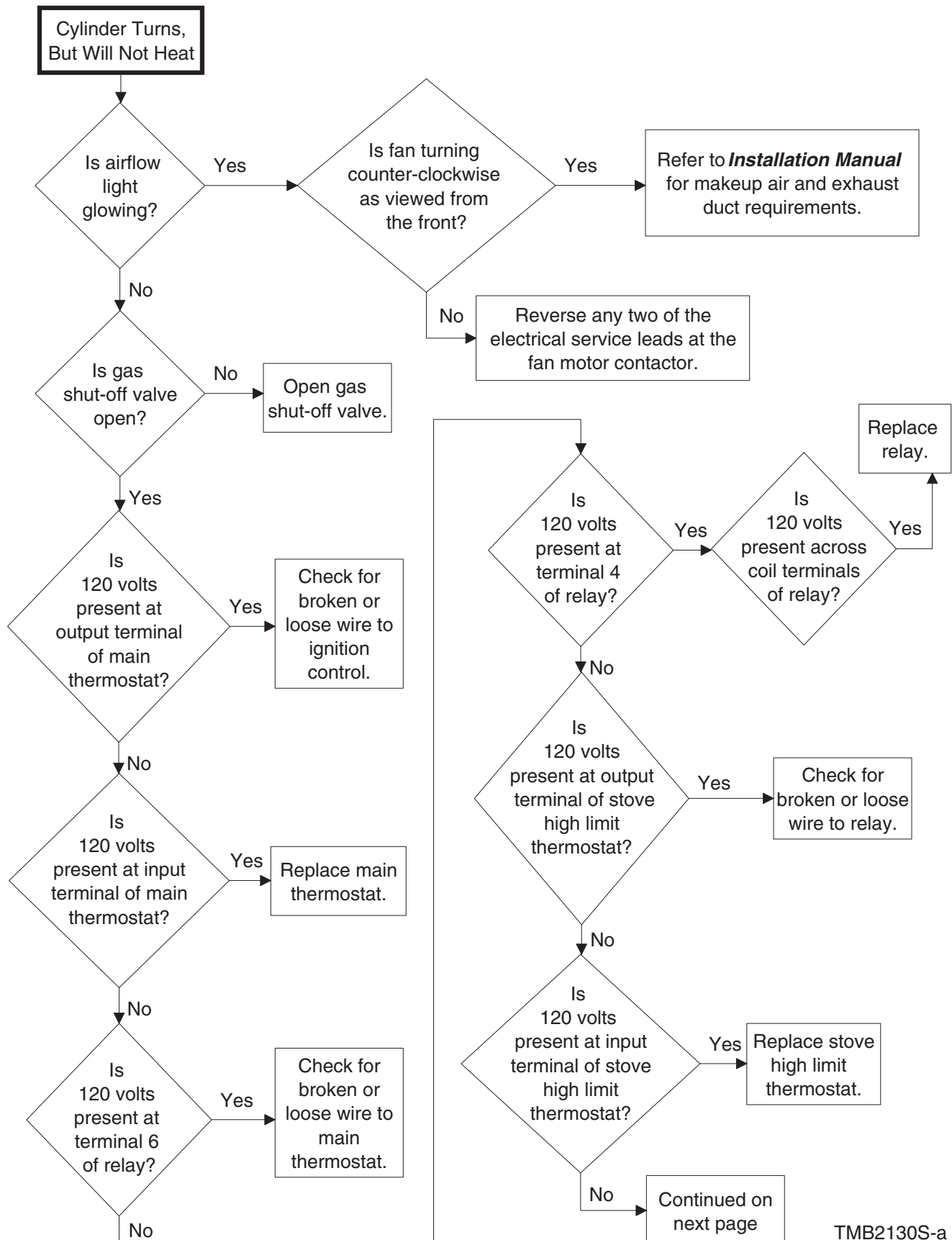
TMB2128S-b

## 17. Motor Runs But Will Not Heat



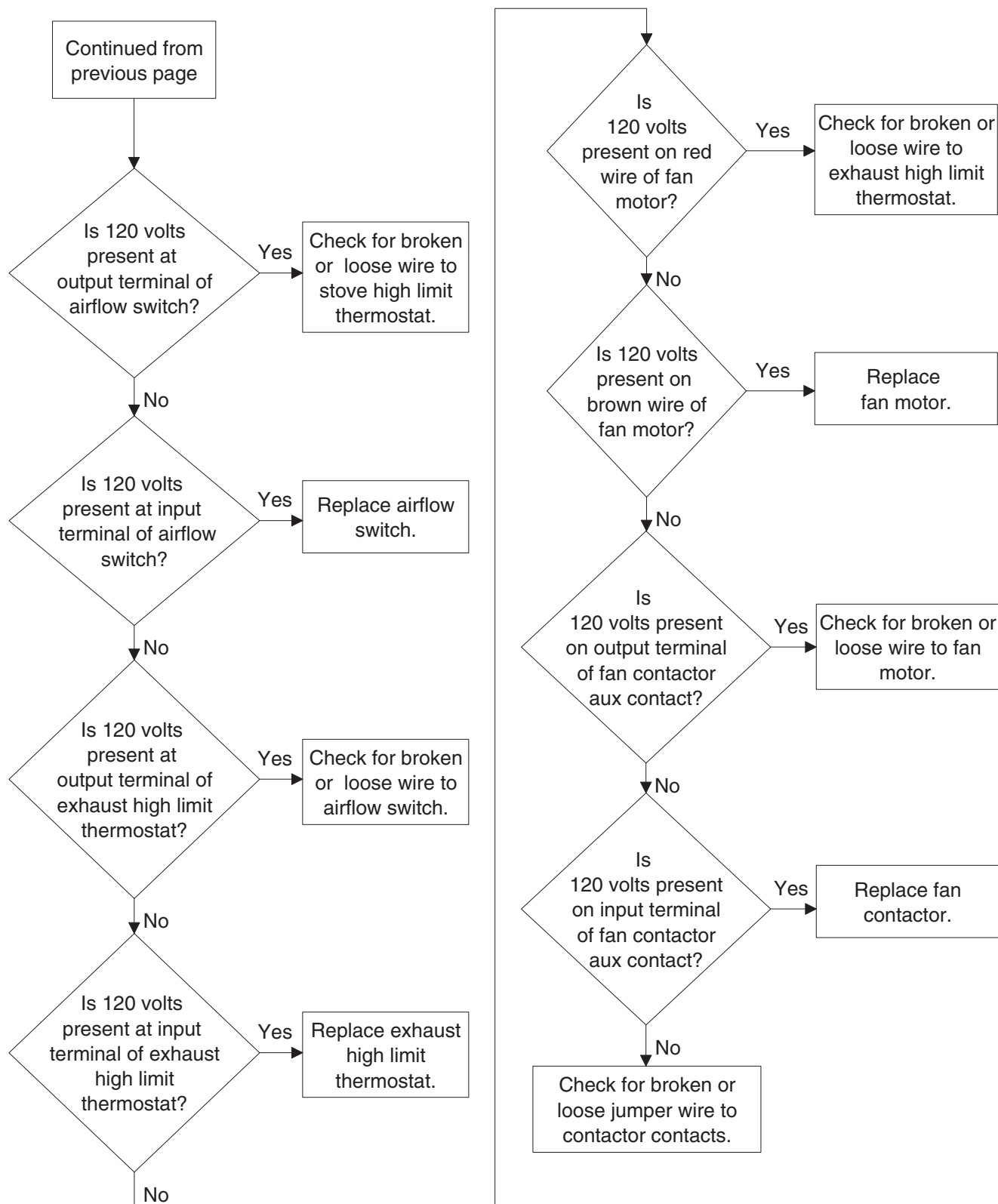
TMB2129S

# 18. Cylinder Turns, But Will Not Heat



TMB2130S-a

# 18. Cylinder Turns, But Will Not Heat (continued)



TMB2130S-b

# Section 4

## Adjustments



### WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

### 19. Drive Belt Tension

Refer to *Figure 1*.

**NOTE:** If cylinder belts will be adjusted, service them before drive belt.

**NOTE:** To find the proper tension, apply light thumb pressure midway between the sheave and motor pulley, and adjust until the belt can be depressed approximately 1/2 inch (13 mm).

- a. Support corner drive guard and remove screws holding corner guard to rear of tumbler.
- b. Support drive guard cover and remove screws holding guard to rear of tumbler.
- c. Reinstall drive guard.
- d. Loosen the two side bracket attaching screws.
- e. Turn the adjusting nuts clockwise until proper tension is reached.
- f. Tighten all nuts and screws.

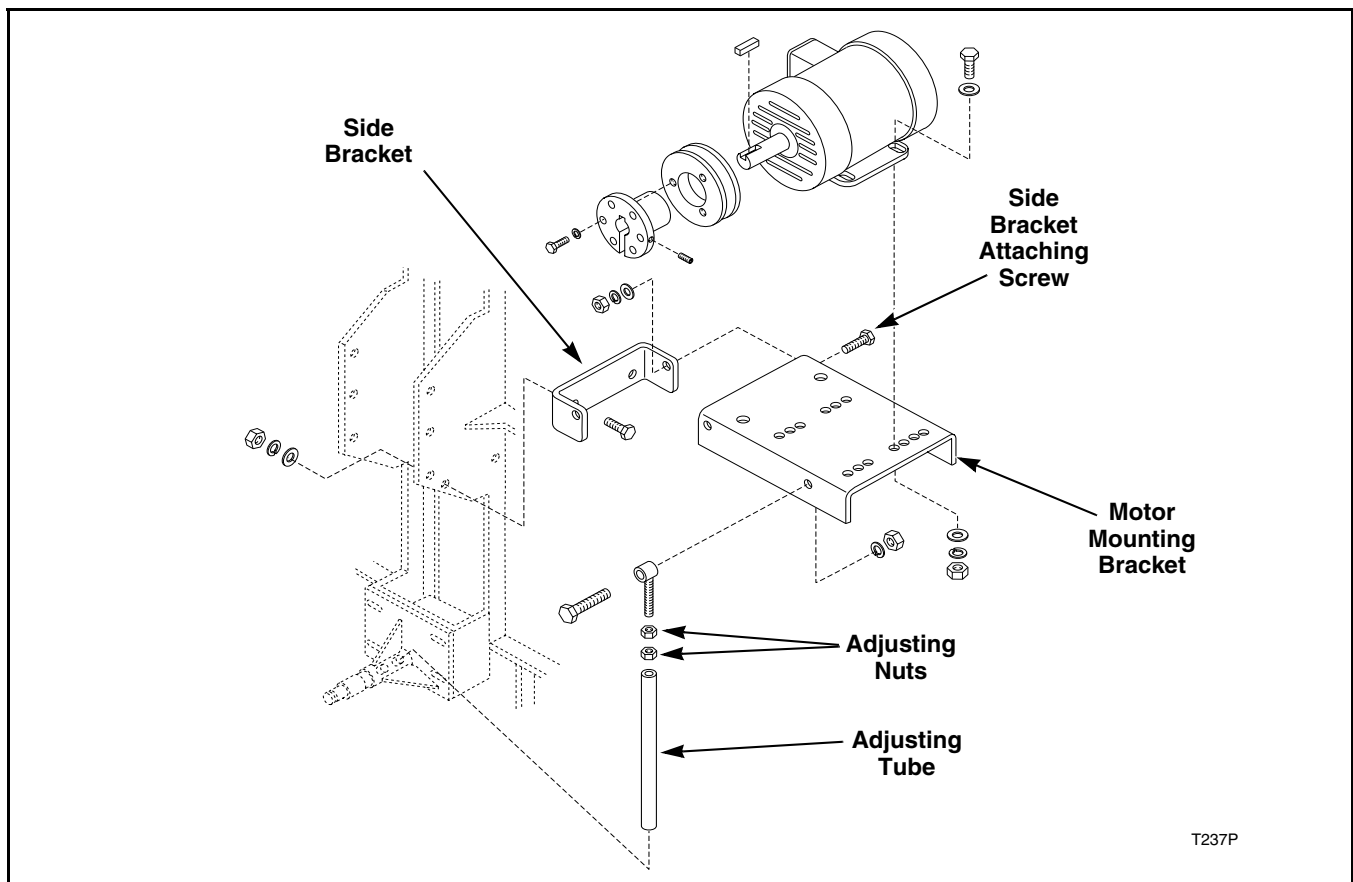


Figure 1



## WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

## 20. Cylinder Belt Tension

**NOTE:** To find the proper tension, apply light thumb pressure midway between the cylinder sheave and the step pulley, and adjust until the belt can be depressed approximately 1/2 inch (13 mm).

- Support corner drive guard and remove screws holding corner guard to rear of tumbler.
- Support drive guard cover and remove screws holding guard to rear of tumbler.
- Loosen the four jackshaft assembly attaching screws. Refer to *Figure 2*.
- Loosen adjusting nuts on outer eyebolt and rotate bottom nut clockwise until proper tension is reached. Refer to *Figure 1*.
- Retighten all nuts and screws.
- Readjust drive belt.

**IMPORTANT:** Adjusting the cylinder belt tension **WILL AFFECT** the drive belt tension. You **MUST** check and readjust the drive belt tension after adjusting the cylinder belt tension.

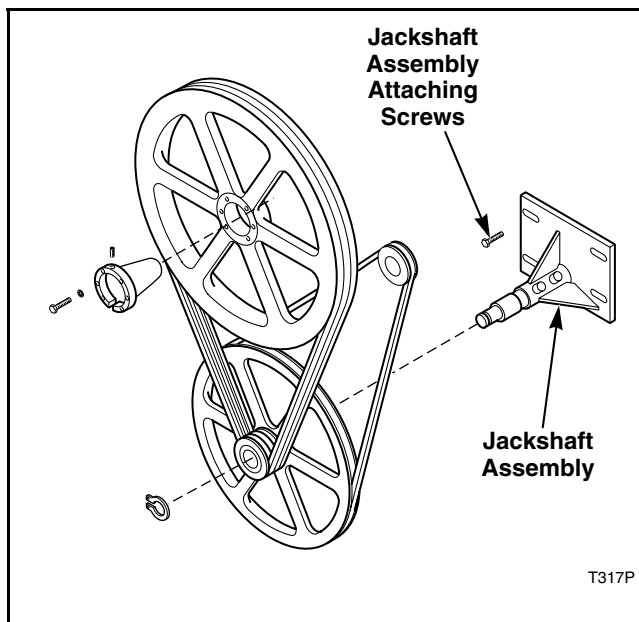


Figure 2

## 21. Fan Belt Tension

Refer to *Figure 3*.

**NOTE:** To find the proper tension, apply light thumb pressure midway between the fan motor pulley and the fan pulley, and adjust until the belt can be depressed approximately 1/2 inch (13 mm).

- Support corner drive guard and remove screws holding corner guard to rear of tumbler.
- Support drive guard cover and remove screws holding guard to rear of tumbler.
- Loosen the two mounting bracket attaching screws.
- Raise or lower eye bolt until proper tension is reached.
- Retighten all nuts and screws.

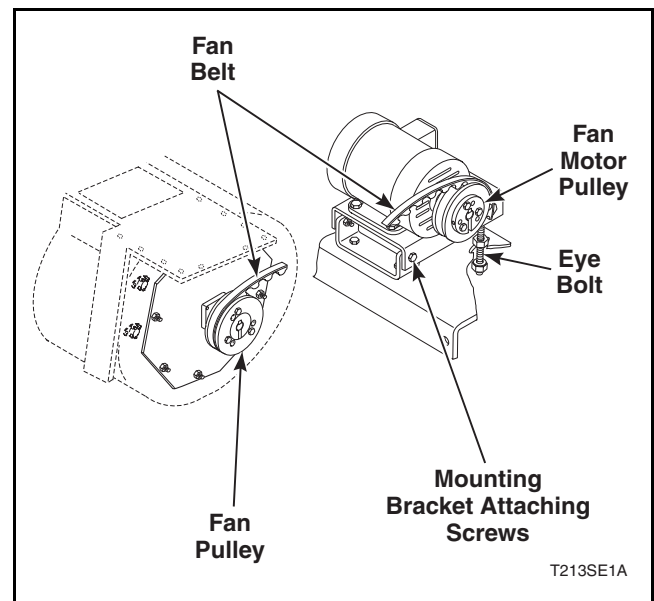


Figure 3





## WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

## 22. Cylinder Clearance

The clearance between the cylinder rim and front panel must be adjusted so the cylinder is centered within the front panel opening when the cylinder is fully loaded and is turning. However, the adjustment should be made when the cylinder is empty.

**NOTE: If the cylinder is not properly adjusted, the cylinder rim will rub against the front panel.**

- a. Open loading door.
- b. Check the gap between the center of the front panel top flange and the cylinder rim. Proper adjustment is when the gap is  $8/32$  inch  $\pm$   $3/32$  inch. Refer to *Figure 4*. Perform steps “a” through “g” to adjust the cylinder rim/front panel flange clearance.
- c. Check the cylinder fore/aft clearance between the inside front of the cylinder and the edge of the front panel flange. Proper adjustment is when the gap is  $9/32$  inch  $\pm$   $1/32$  inch. Refer to *Figure 4*. Perform steps “h” through “m” to adjust the cylinder fore/aft clearance.

### Cylinder Rim/Front Panel Flange Clearance Adjustment

- a. Support corner drive guard and remove screws holding corner guard to rear of tumbler.
- b. Support drive guard cover and remove screws holding guard to rear of tumbler.
- c. Loosen rear bearing mounting screws. Refer to *Figure 5*.
- d. Loosen the locknuts on rear adjustment screws. Refer to *Figure 5*.
- e. Turn the adjusting screws in or out as necessary to obtain proper clearance between cylinder rim and front panel.

**NOTE: Turning the adjusting screws clockwise will raise the cylinder and turning them counter-clockwise will lower the cylinder. Turn both screws evenly to adjust top and bottom clearance. Turn one or the other adjusting screw in or out to adjust side clearance.**

- f. After the cylinder is properly adjusted, tighten the adjusting screw locknuts and the rear bearing mounting screws.
- g. Install drive guard cover.

**NOTE: If adjusting the trunnion housing fails to correct the clearance, the problem is probably due to a worn trunnion shaft or defective bearings.**

### Cylinder Fore/Aft Clearance Adjustment

- h. Support corner drive guard and remove screws holding corner guard to rear of tumbler.
- i. Support drive guard cover and remove screws holding guard to rear of tumbler.
- j. Loosen setscrews in the front bearing assembly collar and rear bearing assembly collar. Refer to *Figure 5*.
- k. Move cylinder assembly in or out as necessary to obtain proper clearance between the cylinder and the front panel.
- l. After the cylinder is properly adjusted, tighten setscrews in the front and rear bearing assembly collars.
- m. Install drive guard cover.

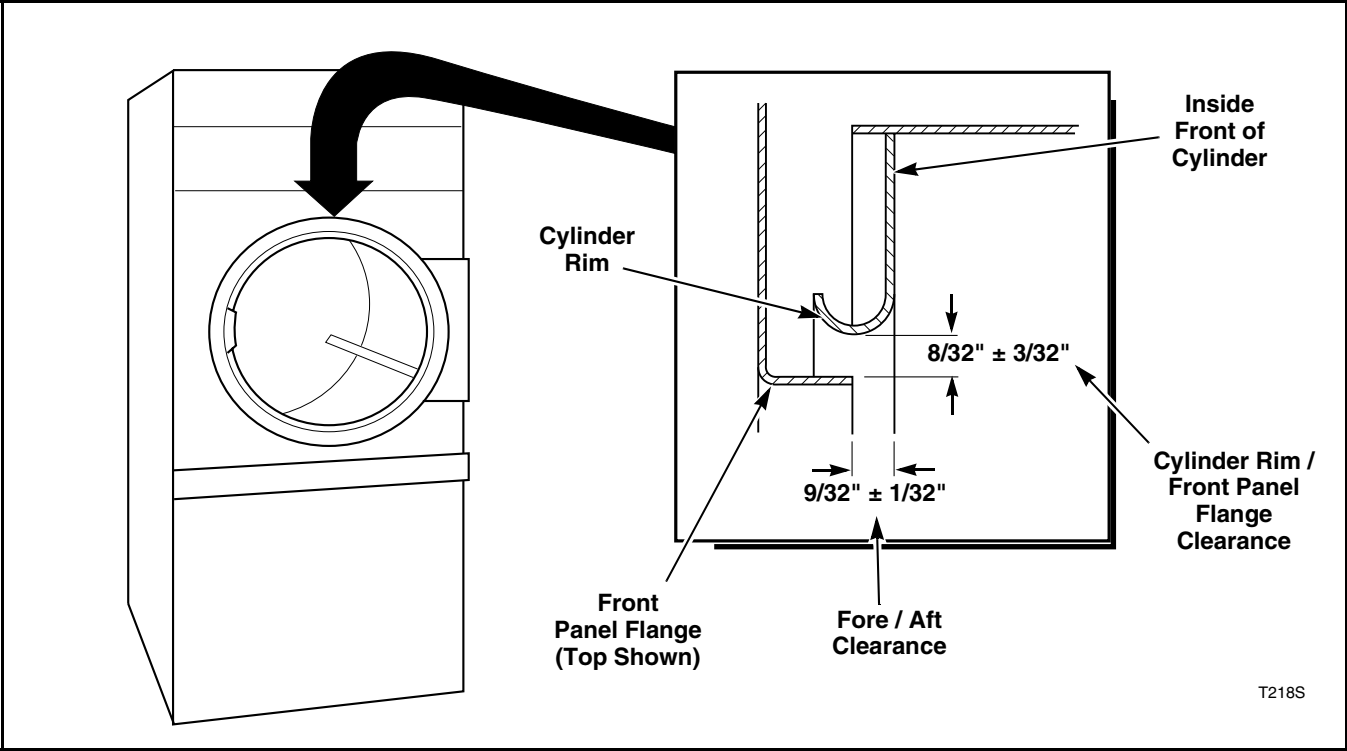


Figure 4

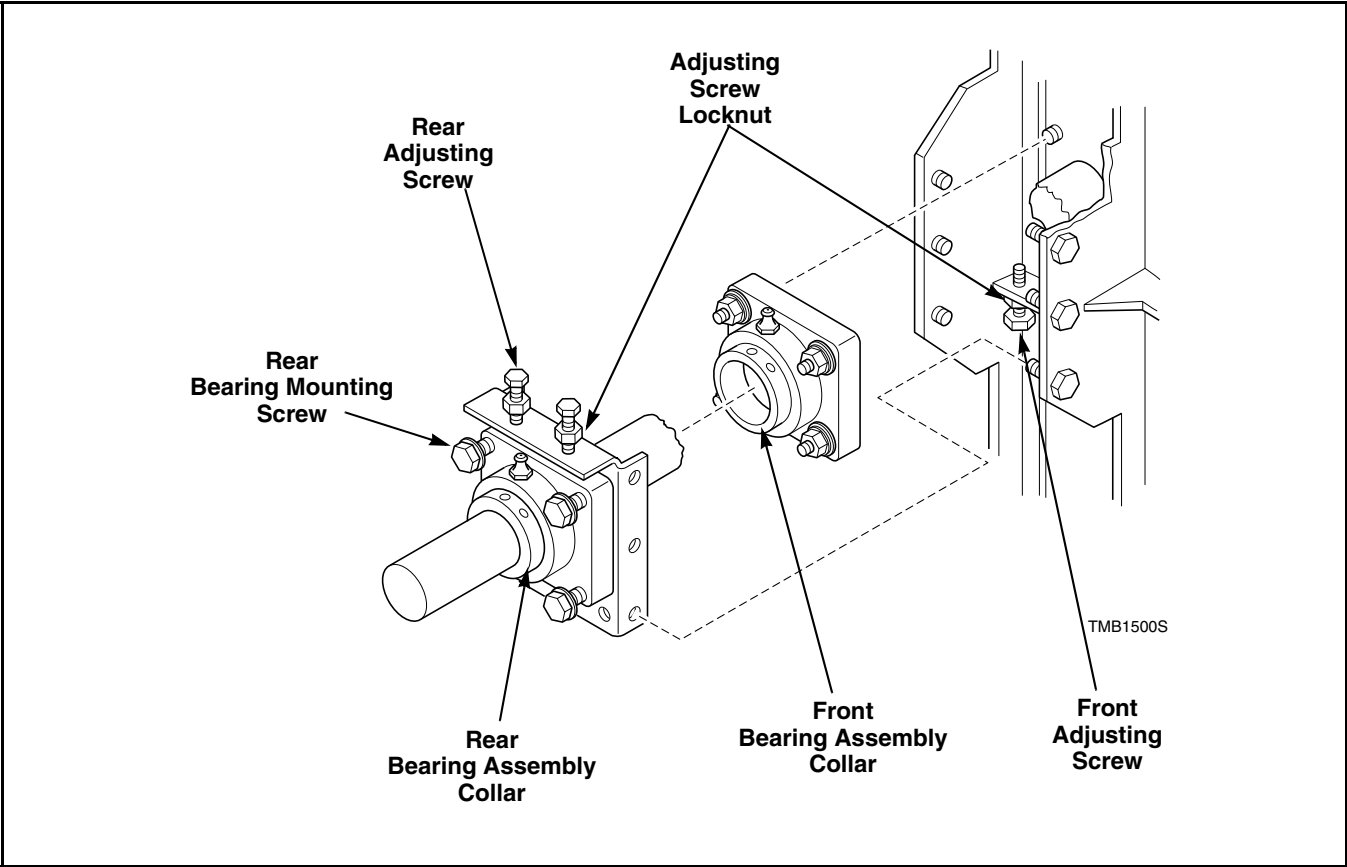


Figure 5